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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/589,426	06/07/2000	Shigefumi Masuda	FUJA 17.393	1115

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EXAMINER

BELIVEAU, SCOTT E

ART UNIT PAPER NUMBER

2614

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,426

Applicant(s)

MASUDA ET AL.

Examiner

Scott Beliveau

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2000 is/are: a) ☒ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/589,426, filed on 7 June 2000.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the

time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanders et al. (US Pat No. 5,893,024).

In consideration of claims 1, the Sanders et al. reference discloses an "ingress noise control system" [200] for use in a "cable system" [100] which utilizes different frequency bands for two-way communications (Col 1, Lines 23-27). The system includes an "ingress noise blocking device" [106] residing in the "transmission path" [108] comprising a "detection controller" [208] which is operable to turn on a "gate switch" [212] upon detection of a signal from the modem so as to "pass the upstream signal" (Col 3, Lines 18-37).

With respect to the limitation pertaining to the "synchronous detection controller", the reference does not explicitly make reference to the "detection controller" as a "synchronous detection controller", however it suggests that the "detection controller" is operable to identify a pattern or frequency of pulses matches that of a known modem (Col 4, Lines 6-15, 26-45). The reference further discloses that these pulses may comprise an initialization or synchronization sequence (Col 2, Lines 50-54). Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to identify the transmission of a modem based on an identification of a particular "synchronization" sequence for the purpose of improving the means for distinguishing between upstream communication and noise exhibiting a particular frequency.

Claim 2 is rejected wherein the system further includes a "configuration" [211] against which the "synchronous detection controller" [208] is operable to "judge" to determine if the

“upstream signal is a valid upstream signal” based on the “spectrum of the upstream signal” (Figure 3). The “synchronous detection controller” [210] is subsequently operable to “turn on” or close the “gate switch” [212] (Col 4, Lines 10-15).

Claim 3 is rejected wherein the aforementioned “ingress noise blocking device” [106] comprises a “first” [216] and “second separation filter” [220] (Col 3, Lines 47-65), a “gate switch circuit” [211], and a “synchronous detection controller” [210] (see claim 1).

Claim 4 is rejected wherein the embodiment further comprises a “synchronous detection judging unit” [210] which based on the “ratio of signal levels at predetermined frequencies” (Figure 3) is operable to “judge” if the “upstream signal is a valid upstream signal” and if so, is subsequently operable to “turn on” or close the “gate switch” [212] (Col 4, Lines 10-15).

Allowable Subject Matter

6. Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

The use of a “detector” in conjunction with a “gate switch circuit” is known in the art. Similarly, the use of “synchronous detection circuits” including filters, delay circuits, is also known in the art. It is the examiner’s opinion, that the art of record, however, is not necessarily conducive to an obvious modification given that each of the cited systems for blocking ingress noise using a “detector” and a “gate switch circuit” utilizes a means other than a “synchronous detector” further comprising the elements recited in claims 5-8.

Subsequently, it would not have been necessarily obvious to one of ordinary skill in the art to modify the cited teachings, as they are operable utilizing a different type/form of detector, and there is no teaching to suggest that the disclosed detectors may be substituted using other art equivalent detection means.

Accordingly, in consideration of claims 5 and 6, the art of record does not suggest nor discloses that the broadly construed “synchronous detection circuit” of the Sanders et al. reference further comprises a “differential detection circuit”. Furthermore, in consideration of claims 7-8, there is no suggestion or disclosure to suggest that the composition of the “synchronous detection controller” further comprises a “delay circuit”, a “synchronous detection circuit”, a “low-pass filter”, or a “synchronous detection judging unit”.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Vince et al. (US Pat No. 5,937,330) reference discloses a device which eliminates all RF ingress noise from entering the CATV network through the switching of a shunt filter under the direction of a detector.
- The Dufresne et al. (US Pat No. 4,982,440) reference disclose a two-way CATV network wherein filters sense the upstream signal energy and open in the event the energy exceeds a predetermined threshold.

- The Ohue (US Pat No. 4,928,272) reference discloses a method of using a frequency division multiplexer such that only a time slot corresponding to a frequency slot containing a signal is transmitted upstream.
- The Bush (US Pat No. 5,719,792) reference discloses an information system comprising a detector that selectively passes upstream signals in response to the receipt of a command sequence.
- The Williams (US Pat No. 5,745,836) reference discloses a noise suppression system wherein a gate enabling signal is operable close an upstream transmission path.
- The Eldering (US Pat No. 6,321,384) reference discloses a method for reducing noise and ingress in cable return paths in which the return frequency spectrum is divided into two regions.
- The Kobayashi et al. (US Pat No. 6,60,990) reference discloses a system wherein upon detection of a transmission indication signal a gate switch is set in an on state so as to facilitate the transmission of an upstream signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907.

The examiner can normally be reached on Monday-Friday from 8:00 a.m. - 5:30 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Application/Control Number: 09/589,426
Art Unit: 2614

Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is 703-306-0377.

SEB
April 23, 2003


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600